

Date: Wed, 28 Sep 94 04:30:15 PDT
From: Ham-Ant Mailing List and Newsgroup <ham-ant@ucsd.edu>
Errors-To: Ham-Ant-Errors@UCSD.Edu
Reply-To: Ham-Ant@UCSD.Edu
Precedence: Bulk
Subject: Ham-Ant Digest V94 #323
To: Ham-Ant

Ham-Ant Digest Wed, 28 Sep 94 Volume 94 : Issue 323

Today's Topics:

2m antennas: car and home?
2 Meter SWR meter schematic????
ALUM. ELEMENT RESTORAL
Amateur Static Satellite Tracking
Does SWR change...
Feedline on the roof. To hot?? will use 214 or 1/2 " hardline
Help!! I'm a Prisoner in a Faraday Cage!
How to make hole for mobile antenna?
Phased Triangle Array 80M?
Stacking question
Static Satellite trackin
Static satellite tracking device
The strange behaviour of my car radio
VERTICAL ANTENNA NEEDED
Whats a good Homemade 2 meter antenna for a tall tree? (2 msgs)

Send Replies or notes for publication to: <Ham-Ant@UCSD.Edu>
Send subscription requests to: <Ham-Ant-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Ant Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-ant".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Mon, 26 Sep 94 17:39:07 EDT
From: ihnp4.ucsd.edu!dog.ee.lbl.gov!agate!iat.holonet.net!synergy.org!
dww@network.ucsd.edu
Subject: 2m antennas: car and home?
To: ham-ant@ucsd.edu

<smp@agape.sol.net> said...

>I have a 94 civic CX Hatchback, and I don't really want to drill any
>holes in the thing. Can anyone recommend a decent antenna setup for
>it that wouldn't need drilling? How can I route a cable in, from say
>a magmount, without drilling? Any inputs on glass mounted antennas?
>How do they work?

I just bought a Honda Accord and installed what I have determined to be the best alternative to a permanently mounted antenna...a Diamond K-600M variable angle, low profile trunk lip mount and a Comet B-20 (dual band, 30") antenna for trips and a Comet B-10 (12") for 'round town. Although I'm using my HT with this setup for now (to soon be replaced with a Kenwood TM-733 dual band mobile rig), performance is outstanding. The diamond mount is well designed and won't chip your paint at all (even on the underside of the trunk lip, which would lead to premature rusting).

A friend of mine had two glass mounts on his CRX, one for 2M and one for 440, but he determined that the glass mounts were leaking lots of RF and were a weak link in an otherwise great setup, so he now uses a hard-wired mag mount with a single dual bander. My reasoning for going with the diamond mount over a mag mount is simply that the mag mount wouldn't have cost very much less than the diamond mount and yet the mag mount would move around and most likely mar my paint in some way.

>I haven't asked, but I am almost positive outside antennas will not be an option. >There is an "attic" upstairs that I could perhaps put something in. What sort of
>recommendations can you make for me?

I know of friends who have successfully used homemade J-poles for 2M packet up in their attics (I have one ready to go, as soon as I get the money for the TNC!). I think that pretty much any antenna that you can find to fit up in the attic would work well. The little bit of extra height doesn't hurt any either!

BTW, I've heard good things about that RS rig. I've even heard a few on frequency in my local area and the audio quality is very good. Congrats on passing the test--welcome to radio!

73 de N2W0L

-Doug

==> Sent from The Synergy BBS, Somerset, NJ (908) 545-5255 (d) <==

Date: Tue, 27 Sep 1994 02:39:50 GMT
From: pacbell.com!att-out!nntp!cbfsb!cbnewsf.cb.att.com!cropley@ames.arpa
Subject: 2 Meter SWR meter schematic????
To: ham-ant@ucsd.edu

In article <1994Sep26.130224.16872@ke4zv.atl.ga.us> gary@ke4zv.atl.ga.us (Gary Coffman) writes:

>In article <Cwq231.J6H@rahul.net> Mike Lyon <mlyon@rahul.net> writes:

>>

>>does anyone out there by chance have a schematic for a swr meter for 2

>>meters? or know of a place where i can get one?

>

>The RSGB VHF UHF Book has a project that makes one out of some standard

^^^^

What's this stand for??

>copper plumbing fittings and some hobby shop brass. I built it, it works

>about as good as a Bird if you build and calibrate it carefully. It's the

>perfect thing to leave in-line all the time. However, Radio Shack, of all

>people, sells a nice little portable instrument that works fine at 2 meters.

This unit I think used to sell for \$40 but has since been discontinued and can't be found anywhere in my area of New Jersey.

Would love to try to make one.

>

>Gary

>

>--

>Gary Coffman KE4ZV		You make it,		gatech!wa4mei!ke4zv!gary
>Destructive Testing Systems		we break it.		emory!kd4nc!ke4zv!gary
>534 Shannon Way		Guaranteed!		gary@ke4zv.atl.ga.us
>Lawrenceville, GA 30244				

andy C

N2ZAM

cropley@cbnewsf.att.com

Date: Mon, 26 Sep 1994 22:28:00 GMT

From: 111-winken.llnl.gov!overload.lbl.gov!agate!iat.holonet.net!kbsbbs!

tom.alldread@ames.arpa

Subject: ALUM. ELEMENT RESTORAL

To: ham-ant@ucsd.edu

Greetings to All:

I recently purchased a 15 year old 20/15 metre 9 element Wilson beam with a 40 foot boom. The aluminum is pretty dull looking and I

wonder if anyone on this conference has any recommendations as to the best way to restore the elements back to a nice glossy finish?

Very Best Regards and 73 to All,

Tom, VE7TMA

Very Best Regards,

T.M. Alldread

* CmpQwk #UNREG* UNREGISTERED EVALUATION COPY

Date: 27 Sep 1994 08:36:19 GMT
From: ihnp4.ucsd.edu!dog.ee.lbl.gov!agate!howland.reston.ans.net!swiss.ans.net!
news.dfn.de!scsing.switch.ch!sun.rediris.es!diable.upc.es!caralt@network.ucsd.edu
Subject: Amateur Static Satellite Tracking
To: ham-ant@ucsd.edu

Date: Mon, 26 Sep 94 19:33:00 -0500
From: ihnp4.ucsd.edu!dog.ee.lbl.gov!agate!iat.holonet.net!wwwswinc!
art.harris@network.ucsd.edu
Subject: Does SWR change...
To: ham-ant@ucsd.edu

In <1994Sep17.011647.27158@ke4zv.atl.ga.us>, Gary Coffman, KE4ZV wrote:

>In article <1994Sep15.143131.5995#ned.cray.com> demers@labman.cray.com (Larr
>DeMers) writes:

>>I have been out of Amateur Radio for 20 years, and am now making an effort
>>determine if I want to re-enter this hobby. It has changed remarkably
>But there is an element present that I am
>unfamiliar with, a more cynical, almost nasty presence

>Unfortunately, if you listen to people on the street, they have that
>same cynical note, especially since Comrade Clinton slithered into the
>White House.

Give me a break!

≥ OLX 2.1 TD ≥ -

Date: Tue, 27 Sep 1994 02:22:27 GMT
From: agate!howland.reston.ans.net!usc!nic-nac.CSU.net!charnel.ecst.csuchico.edu!
olivea!news.bu.edu!gw1.att.com!nntpa!cbfsb!cbnewsf.cb.att.com!cropley@ames.arpa
Subject: Feedline on the roof. To hot?? will use 214 or 1/2 " hardline
To: ham-ant@ucsd.edu

I'm going to have to run some feedline along the crest on the roof
to a gabel vent at the end. Q? I know surface temps on the roof in
summer go well over 120 degrees F. I will use a UV protected feeline
however I'm worried about excessive heat degrading the dielectric
inside. Anybody experience this and have some info on what might be best?

Andy C

N2ZAM

cropley@cbnewsf.att.com

Date: 26 Sep 1994 19:52:36 GMT
From: ihnp4.ucsd.edu!pacbell.com!sgiblab!spool.mu.edu!howland.reston.ans.net!
news.cac.psu.edu!news.tc.cornell.edu!travelers.mail.cornell.edu!
newsstand.cit.cornell.edu!usenet@network.ucsd.edu
Subject: Help!! I'm a Prisoner in a Faraday Cage!
To: ham-ant@ucsd.edu

In article <1994Sep21.185128.1059@ccc.amdahl.com> Arlan R Levitan,
arl00@ccc.amdahl.com writes:

>

>My friend has suggested that we use half of an "on-glass" antenna to
>couple to the metallic foil on the outside of the windows (any guesses
>as to what kind of SWR we'd run into? <g>}. Any antenna experts think
>that's worth a shot?

>

>Each of our offices has two 6'x 10' windows, separated by a 3" vertical
>aluminum bar. We suspect there is steel under the aluminum, but haven't
>verified this with a drill, since the landlord would probably frown on
>such anti-social behavior.

>

>Any suggestions, clever workarounds, or sneaky covert antenna scams
>would be more than welcome.

I'd look into a slot antenna design I saw in one of the Antenna Compendiums. As I recall for vertical polarization you need a horizontal slot. There were designs of various lengths I believe. You will need a piece of metal into which to cut the slot, but you might be able to disguise that as something socially acceptable and PC (yuck!). The article was based around radiating from a situation similar to yours. Good luck.

73 de Kevin, WB2EMS

Date: 27 Sep 1994 07:07:15 GMT
From: ihnp4.ucsd.edu!dog.ee.lbl.gov!agate!usenet@network.ucsd.edu
Subject: How to make hole for mobile antenna?
To: ham-ant@ucsd.edu

OK, this thread may be dead (or barely beating) but I'll still post something anyway...

But in the old days (ca. 76-79) I installed more than my fair share of antennas for commercial two-way radios and I dare say, CBs (remember those?). We were a Generous Electric rep. (apparently GE was generous whereas Mottrash, err Motorola, wasn't - or at least not as). But I'm boring you, so back to those holes in the roof...

The best way I found was to remove the headliner and get to the middle of the roof if at all possible (sometimes it was possible to remove just the dome light and snake the coax down the door partition or the metal channel on either side of the windshield). Back in the 70s it was fairly easy - I remember some vehicles were coming out where it was somewhat tricky to mount there because of a low-profile structural channel brace. I'd drill an access hole through the brace if necessary (headliner removed, of course!) and use the Antenna Specialists (OK, they may not have invented it) 3/8" antenna mount. Of course, one may be constrained by the antenna loads available with such a mount in the ham bands (I'm not a ham but that may change). It's easier to plug up a 3/8" hole when it comes to resale of your vehicle, also. On pickups, it was fairly straightforward to do the dome-light bit (usually requested by those who wanted rigs installed) and I remember one old pickup (Dodge?) that had a double metal roof in which it *had* to be done this way.

I really liked that 3/8" mount from A/S. They even souped it up with a more weather-proof design; I still see it when looking at antennas here or there. Larson used a 3/4" mount that was OK and their loads were

lower in profile than A/S's.

But how did I cut that damn hole for the Larson-type mount? Usually didn't since most customers didn't want a damn 3/4" hole in their roof!

But it was with a cone cutter when they would let us. A cone-cutter without those fancy steps you can get these days - just a good, high quality, will-cut-through-metal-like-butter cone cutter! No 'wizzy-bang hole saw', no drill bit - A CONE CUTTER! Well worth repeating, they are really, really, nice to use - hell, we used one a 'zillion' times and it still worked wonderfully (got lotsa abuse too <not from me!>). Don't have any brand names for you, but expect to pay nearly \$30 for a good one. And you'll find more uses for a cone cutter than some specialized 3/4" hole drillin' do-dad for antennas.

Kelly

Date: 27 Sep 1994 07:09:51 GMT
From: ihnp4.ucsd.edu!dog.ee.lbl.gov!agate!howland.reston.ans.net!spool.mu.edu!news.sol.net!solaria.mil.wi.us!garyk9gs@network.ucsd.edu
Subject: Phased Triangle Array 80M?
To: ham-ant@ucsd.edu

Hello, I'm hoping someone on the 'net can help with this one. I noticed the 80m four square array used at ON4UN and described in the 2nd edition of ON4UN's book entitled "Antennas and Techniques for Low-Band DXing" on page 11-55. In this section, John describes a 4-square array hung from the top of a 160M 1/4 wave tower. Each element is made of wire and has a single elevated radial.

I got to thinking, and not having a tower that high (!), what if the elements were made instead from top-loaded "T" antennas, still using one or possible 2 elevated radials?? I think an 80M top-loaded element could be made about 40' high, instead of 66' high.

I next looked at using 3 elements in a triangle array, instead of 4.

I could not find any way to switch the array direction....anyone have any ideas?? Also, has anyone modeled or constructed 1/4 wave monopoles with elevated radial systems??

What do some of you computer modeling types think of this idea??

Thanks for your help!
73 Gary K9GS

Date: 27 Sep 94 12:38:01 GMT

From: news-mail-gateway@ucsd.edu
Subject: Stacking question
To: ham-ant@ucsd.edu

Hello guys!

I have a 205CA (20m yagi) on the top of a mast. The mast is only about 6 feet out of the top of the tower. Am I OK to stack a 6 element DXE 15m below it? If not, what about a 6 element KLM 10? I guess this could be modeled, but I don't have the software to do it right now.

Thanks

Bill Fisher, KM9P
Concentric Systems, Inc. (CSI)
404-442-5821 Fax 404-667-1975

Date: Mon, 26 Sep 1994 15:37:00 GMT
From: lll-winken.llnl.gov!overload.lbl.gov!agate!iat.holonet.net!kbsbbs!
tom.alldread@ames.arpa
Subject: Static Satellite trackin
To: ham-ant@ucsd.edu

Greetings:

I noticed your e-mail message on your sat tracking phased array project and found that quite interesting. I hope you will keep us all informed of the progress and technical details.

73

Tom, VE7TMA

Very Best Regards,

T.M. Alldread

* CmpQwk #UNREG* UNREGISTERED EVALUATION COPY

Date: 27 Sep 1994 01:08:23 GMT
From: netline-fddi.jpl.nasa.gov!news.byu.edu!news.kei.com!yeshua.marcam.com!
charnel.ecst.csuchico.edu!olivea!spool.mu.edu!howland.reston.ans.net!
vixen.cso.uiuc.edu!newsrelay@elroy.jpl.nasa.gov
Subject: Static satellite tracking device

To: ham-ant@ucsd.edu

In article <35u2bqINNfhs@diable.upc.es> caralt@gaig.upc.es (Jordi Caralt Barba) writes:

>

>Dear Sir,

>At the Telecommunications School of the Polytechnical University of Catalonia,
>Barcelona, Spain (namely: "Escola Superior d'Enginyers de Telecomunicació de
>Barcelona, Universitat Politècnica de Catalunya, Barcelona, Spain) we are
>developing a project on Amateur Satellite Communications, which consists in
>a full design of a static antenna for satellite tracking. By static we mean
>that no part of the antenna moves while tracking is in progress. The system
>is based on the theory known as "Phased Array": the movement of the beam is
>not mechanic but electronic.

I just finished reading "The Big Ear" by John Kraus. In his book he mentioned briefly this type of antenna. I would like to hear more about this.

By the way that was a great book and I would recommend it highly.

Carlton Richey

--

Date: Mon, 26 Sep 1994 16:47:38 CET

From: ihnp4.ucsd.edu!dog.ee.lbl.gov!agate!howland.reston.ans.net!EU.net!

Germany.EU.net!nntp.gmd.de!dearn!esoc!esrin!kjohnson@network.ucsd.edu

Subject: The strange behaviour of my car radio

To: ham-ant@ucsd.edu

I apologise in advance if I am posting this to the wrong group, but here goes :

- 1) I bought A Ford Sierra (1989) model in UK in 1992.
- 2) The standard-issue radio worked fine.
- 3) After a few months it suddenly stopped working.
À I tried on several occasions but the radio would not tune to anything ©
- 4) In 1994 I moved to Italy.
- 5) Shortly I afterwards I found that my radio was working -
- reception good

- automatic tuner working well

- 6) I recently returned to the UK with the car -
- guess what , the radio stopped working as before
- 7) I subsequently returned to Italy and to my surprise -
- guess what , the radio is working again.

Can anyone offer any theories on this strange behaviour ?

Thank you for any help, Kevin.

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=====
Kevin Johnson                EMAIL : johnson@mail.esrin.esa.it
Information Administrator     PHONE : (+39) 6 941 80 633
European Space Agency        DISCLAIMER : These views are mine
Via Galileo Galilei          not necessarily those
Frascati 00044               of my employer.
ITALIA.
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Date: 27 Sep 1994 08:48:34 GMT
From: ihnp4.ucsd.edu!library.ucla.edu!agate!howland.reston.ans.net!EU.net!
Germany.EU.net!news.dfn.de!news.belwue.de!news.uni-stuttgart.de!
moritz@network.ucsd.edu
Subject: VERTICAL ANTENNA NEEDED
To: ham-ant@ucsd.edu

Mike,

We have *very* good experience with a Butternut designed for
40 and 80. Since your R7 does not work too well on 40,
(according to a recent test report over here)
These two antennas will supplement each other well.

Alternative: An OM forcefully matches his R7 to 80 over here
(well actually he will be matching the feed line).

In any case a vertical will easily outperform a dipole or beam,
unless the latter are mounted in sufficient height.

Success and good luck, Moritz DL5UH

Date: Mon, 26 Sep 1994 20:29:26 GMT
From: ihnp4.ucsd.edu!agate!howland.reston.ans.net!gatech!newsxfer.itd.umich.edu!
zip.eecs.umich.edu!yeshua.marcam.com!charnel.ecst.csuchico.edu!csusac!csus.edu!

netcom.com!russek@network.ucsd.edu

Subject: Whats a good Homemade 2 meter antenna for a tall tree?

To: ham-ant@ucsd.edu

Hi all,

I've got a small hand held Kenwood 22AT with 3-5 WATTS power, there is a tall tree in my backyard(about 15 feet higher than my roof) I am assuming that an antenna put on that tree would get me much better distance on RX and TX. The first question is will I be better off with an antenna in my roof(and a short coax running to my radio) or an antenna on a tall tree(with a long coax run)? The tree is probably about 45 feet away, I can probably make it with 55 feet of coax. Which is better? Do I lose anything in that run?

ok, question 2 is what kind of home made antenna works well in a tree? The tree isn't very wide but it is tall.

Last question, can I use standard 75ohm TV cable wire to run to my tree antenna??? I just want to say again, the is on the 2 METER band.

Thanks for your help in advance, E-mail me if you have suggestions!

Date: 27 Sep 1994 08:57:18 GMT

From: ihnp4.ucsd.edu!swrinde!howland.reston.ans.net!EU.net!Germany.EU.net!news.dfn.de!news.belwue.de!news.uni-ulm.de!rz.uni-karlsruhe.de!news.uni-stuttgart.de!moritz@network.ucsd.edu

Subject: Whats a good Homemade 2 meter antenna for a tall tree?

To: ham-ant@ucsd.edu

In article <russekCwr7L3.B48@netcom.com>,

Cory Russek <russek@netcom.com> wrote:

>Hi all,

>I've got a small hand held Kenwood 22AT with 3-5 WATTS power, there is a tall >tree in my backyard(about 15 feet higher than my roof)

Maybe you should stick with your roof and get a little pole.

the tree will absorb when wet, and 55 ft of good coax can substantially add to total system costs.

Good luck, 73, Moritz DL5UH

End of Ham-Ant Digest V94 #323
